

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 55-046338

(43)Date of publication of application : 01.04.1980

(51)Int.CI. F28F 21/04

(21)Application number : 53-118551 (71)Applicant : NGK INSULATORS LTD

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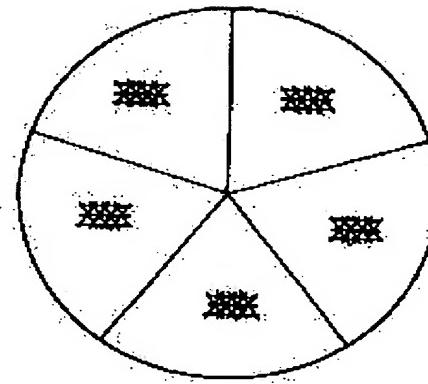
**(54) HEAT AND SHOCK RESISTANT, REVOLVING AND HEAT-REGENERATING TYPE CERAMIC HEAT EXCHANGER BODY AND ITS MANUFACTURING**

**(57)Abstract:**

PURPOSE: To obtain product of high efficiency and of less pressure loss thru a method wherein matrix segments of honey-comb structure are jointed employing jointing material of the same mineral composition but small in thermal expansion difference between the two, and restricting the thickness at jointing part within a specified range.



CONSTITUTION: Thru the extruded shaping of the ceramic material such as cordierite whose thermal expansion rate is comparatively low, matrix segments of honey-comb structure of cell form such as triangle, square and the like are formed and solidified by sintering. A plurality of the formed segments are jointed, solidified by sintering and heat exchanging body of a unitary structure is formed. The ceramic jointing material to be employed is of a nature such that the composition thereof after sintering is the same with the matrix segment, the thermal expansion difference between the two at 800° C is below 0.1%, and the thickness of the jointing material to be painted at the jointing portions is to be 0.1W6mm after sintering. Thru the above mentioned manufacturing method, a heat exchanger of high efficiency and of less pressure loss is obtained.



**LEGAL STATUS**

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision  
of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]